



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,511	05/02/2001	Yu-Hsi Wang	67,200-404	7868

7590 06/20/2003

TUNG & ASSOCIATES  
Suite 120  
838 W. Long Lake Road  
Bloomfield Hills, MI 48302

EXAMINER

KORNAKOV, MICHAEL

ART UNIT	PAPER NUMBER
----------	--------------

1746

DATE MAILED: 06/20/2003

*cc*

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/847,511

Applicant(s)

WANG ET AL.

Examiner

Michael Kornakov

Art Unit

1746

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 04 June 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY [check either a) or b)]**

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 1-20.

Claim(s) withdrawn from consideration: \_\_\_\_\_

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

Continuation of 5. does NOT place the application in condition for allowance because: of the reasons set forth in the Final Office Action on the merits. Applicants argue that there is no motivation to combine references to Komatsuzaki and Erk.

In response to applicant's argument, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In the instant case, both Erk and Komatsuzaki teach wet chemical treatment of semiconductor substrates and apparatus for its implementation, and both teachings comprise the same process enhancement technique, namely the reciprocal motion of the substrate positioned in the processing liquid. Erk states that the reciprocating rate affects semiconductor processing time and that sufficient reciprocating rate leads to accelerated cleaning, therefore exposure to other treatment tools (techniques) can be minimized (col.6, lines 28-37). Erk also discloses the preferable reciprocating rate of at least 60 cycles/min as one of his processing parameters. Therefore, one skilled in the art at the time the invention was made, motivated by the teaching of Erk would have found it obvious to utilize the preferable reciprocating rate of Erk in order to accelerate treatment of semiconductor substrate in the teaching of Komatsuzaki with the reasonable expectation of success. It is further noted that all structural elements of apparatus and all major steps of the process are taught by the primary reference, and the Erk reference is attracted only to show that the numerical value of frequency, which is not disclosed by Komatsuzaki, is a conventional one and is routinely used in the art.

Applicants also argue that Erk does not teach a method in which a wafer is completely immersed in a stripper solution.

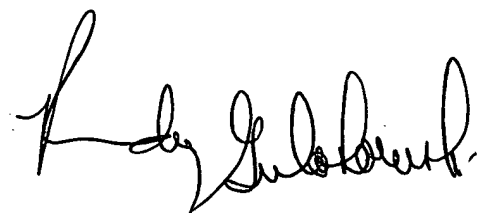
In response to this argument, Applicants are kindly advised that the reference to Erk is not used as the primarily reference, but as the secondary reference in order to remedy the deficiency of the primarily reference to Komatsuzaki.

It is also noted that the features upon which applicant relies (i.e., completely immersing) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicants traverse rejection of claims 1-4 stating that reference to Weber does not teach a wet stripping apparatus, wherein "said at least one wafer immersed in said stripper solution" and it would be impossible to spray the fluid onto the wafers if the container is full of fluid.

In response to this Applicants are kindly referred to the cleaning apparatus of Weber, which comprises fluid container (reads on "tank", as instantly claimed) into which liquid chemicals can be introduced, an overflow opening via which the fluid entering the container can flow out, wafer receiving device (reads on "wafer holder", as instantly claimed) and means for lifting and lowering or reciprocating vertically the wafer receiving device. The liquid media is contained within the fluid container during wafer processing. Therefore, the device of Webber is fully capable of holding, immersing and reciprocating at least one wafer being in vertical position. Applicants' attention is drawn to the fact that the apparatus, not process is recited in claims 1-4. Apparatus claims must be structurally distinguishable from the prior art in terms of structure not function. In *re Danley*, 120 USPQ 528, 531 (CCPA 1959); *Hewlett-Packard Co. v. Baush and Lomb, Inc.*, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990);

M.E



RANDY GULAKOWSKI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700